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EXAMINER	
HOLLOWAY, JASON R	

ART UNIT	PAPER NUMBER
3664	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/530,142	SEIDEL ET AL.	
	Examiner	Art Unit	
	JASON HOLLOWAY	3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 October 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Claims 1-6, 9, 12-13, and 17 are amended. Claim 17 is newly added.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable Ollgaard (US 2003/0147753) in view of Simmons (6,802,169) and further in view of Maliszewski (6,467,233).

Regarding claim 1, Ollgaard teaches a modular kit for a tower of a wind energy turbine, comprising:

a first conical tower segment (one of h1-h4 of figure 1b) comprising a steel tube having a predetermined length (see at least paragraph [0028], all the conical tower segments of Ollgaard are conical),

a second conical tower segment (one of h1-h4 of figure 1b) comprising a steel tube having a predetermined length, wherein the first conical tower segment is to be coupled to the second conical tower segment in an assembled condition, the diameter of the first conical tower segment at a lower end being equal to the diameter of the second conical tower segment at an upper end (see figure 1b), and

a first conical tower segment comprising a steel tube wherein the second conical tower segment is to be coupled to the first conical tower segment in the assembled condition (see figure 1b), and

However, Ollgaard fails to explicitly disclose a tower section having a length that is selected from a plurality of lengths between a predetermined minimum length and a predetermined maximum length wherein the length of the first cylindrical tower segment can be adapted to the necessary height of the tower between its minimum height and its maximum height, the minimum height being the sum of the predetermined lengths of the first and second conical tower segments and the minimum length of the first cylindrical tower segment, and the maximum height being the sum of the predetermined lengths of the first and second conical tower segments and the maximum length of the first variable cylindrical tower segment.

Simmons teaches it is widely well known in the art that column lengths of structures can be varied, **"...such lengths being principally a matter of designer choice..."** (see column 2 lines 20-30). Therefore, from the teaching of Simmons, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify at least some of the tower lengths of Ollgaard with varying heights similar to teaching of Simmons in order to provide the tower designer the option to increase or decrease the height of the tower depending on the necessary height for the particular application. The examiner would like to point out that it is widely well known in the wind tower art that depending on where the tower is placed, different tower heights are required. For instance, a wind tower in a backyard residential application

would need to generate less energy thus having a smaller propeller and lower height than a wind tower placed on a mountain or in a desert or other remote location.

However, the combination of Ollgaard and Simmons fails to explicitly disclose the use of conical tower sections along with cylindrical tower sections in order to form the height of the tower. Maliszewski teaches a wind tower having just that. Therefore, from the teaching of Maliszewski, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ollgaard and Simmons to include a tower having both conical and cylindrical sections in order to allow for cylindrical segments to be used to raise the height of the tower per the needed design while keeping the conical segments the same height, thus allowing them to be easily transported.

Regarding claim 2, the combination of Ollgaard and Simmons fails to explicitly disclose the first tower segment has a door opening.

Maliszewski et al. teaches it is widely well known in the art to construct door openings in wind towers (segment 12 of figure 2 comprises a door opening; see also column 3 lines 36-41).

Therefore, from the teaching of Maliszewski, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ollgaard and Simmons to include a door in the base of the tower in order to permit access to workers into the tower.

Regarding claim 3, the combination of Ollgaard, Simmons and Maliszewski teaches all the limitations of the claim including the door opening (via Maliszewski) and

the minimum and maximum heights of the tower (which is already addressed in the rejection to claim 1 above since the teaching of Ollgaard and Simmons shows it is obvious to change the heights of a tower based on the necessary height).

Regarding claim 4, the claim comprises similar limitations to that of rejected claims 1 and 3 above and is thus rejected under the same rationale.

Regarding claim 12, the combination of Ollgaard, Simmons and Maliszewski teaches the first cylindrical tower segment and the second cylindrical tower segment each comprise an essential constant wall thickness over their length (see figure 1b of Ollgaard which teaches walls having the same thickness; it is widely well known in the art to construct inner cylinder wall diameters which are identical from one end to the next).

Regarding claim 17, although the combination of Ollgaard, Simmons and Maliszewski does not disclose the predetermined maximum length of the first cylindrical tower segment is less than the predetermined length of the respective first and second conical tower segments, the examiner would like to point out that this limitation is an obvious design choice and varying the heights of the tower segments would be obvious to one of ordinary skill in the art depending on the desired final height of the tower.

3. Claims 5, 6, 7, 10 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable in view of Ollgaard (US 2003/0147753) in view of Simmons (6,802,169) and further in view of Maliszewski et al. (6,467,233) and further in view of Tadros et al. (US 2003/0000165).

Regarding claims 5 and 6, the combination of Ollgaard, Simmons and Maliszewski teaches a wind turbine tower comprising a door opening and having a length that can be varied as claimed. Ollgaard further teaches it is well known to construct wind turbine towers from concrete (see [0003], however, the combination of Ollgaard, Simmons and Maliszewski fails to explicitly disclose a tower segment formed of prestressed concrete in which the door is formed.

Tadros teaches a precast post-tensioned pole system for a wind tower wherein a lower tower segment is formed of a prestressed concrete tube (see abstract figures 2-3; post-tensioning is a known process involved with prestressed structures).

Therefore, from the teaching of Tadros, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the metal base segment of the combination of Ollgaard, Simmons and Maliszewski with a prestressed concrete tube as taught by Tadros in order to provide a tower having increased compression strength compared to that of a metal base.

Regarding claims 7 and 10, Ollgaard teaches a further tower segment (is of a conical configuration (conical sections via Ollgaard as addressed in claim 1).

Regarding claims 13-15, the claims comprise similar limitations to that of rejected claims 1-6 above and are thus rejected under the same rationale. The examiner would like to point out once again that the maximum and minimum height is an obvious matter of design choice, i.e. claiming an 80 foot high tower is just as obvious as claiming a 50 foot high tower or a 150 foot high tower.

Regarding claim 16, Ollgaard teaches the further tower segment comprises a connecting element for connecting the first variable-length cylindrical tower segment with the further tower segment (figure 3 of Ollgaard shows the connection between segments).

4. Claims 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ollgaard (US 2003/0147753) in view of Simmons (6,802,169) and further in view of Maliszewski et al. (6,467,233) and further in view of Tadros et al. (US 2003/0000165) and further in view of Farber (5,513,477).

Regarding claim 8, the combination teaches conical sections (via Ollgaard) with varying wall thicknesses depending on need disposed within the tower (column 2 lines 9-22 of Maliszewski). However, the combination of Ollgaard, Simmons, Maliszewski and Tadros fails to explicitly disclose the conical sections have a wall thickness decreasing towards their upper ends in the installed condition of the tower.

Farber teaches graded structural utility poles which have a wall thickness decreasing towards their upper ends in the installed condition (as illustrated in figures 3, 7, and 8).

Therefore, from the teaching of Farber, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wall thicknesses of the conical segments of Ollgaard, Simmons, Maliszewski and Tadros with the decreasing wall thicknesses as disclosed in Farber in order to further reduce the material costs of the steel segments since less material would be required.

Regarding claim 9, the combination of Ollgaard, Simmons, Maliszewski and Tadros teaches the first variable length cylindrical tower and the second cylindrical tower segment (via Maliszewski) each comprise an essential constant wall thickness over their length (via Maliszewski-the examiner construes from column 1 lines 29-30 and column 2 lines 53-56 that since the outer diameter of the cylinders are identical, the inner diameters are also inherently identical. Further, it is widely well known in the art to construct inner cylinder wall diameters which are identical from one end to the next).

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ollgaard (US 2003/0147753) in view of Simmons (6,802,169) and further in view of Maliszewski (6,467,233).and further in view of Farber (5,513,477).

Regarding claim 11, the claim comprises the same limitations as rejected claim 8 above and is therefore rejected under the same rationale.

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new grounds of rejection with the addition of Simmons which obviates the use of different height column sections in construction depending on design choice.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HOLLOWAY whose telephone number is (571) 270-5786. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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